

Patent Claims

1. Method of producing a calibration wafer having at least one predetermined optical characteristic, in particular a predetermined emissivity, with the following method steps:
5 provision of a wafer of a semiconductor material; and
processing of the bulk material of the wafer for adjusting the predetermined optical characteristic by a doping with foreign atoms and/or a generation of lattice defects.
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2. Method according to claim 1, characterized in that the doping with foreign atoms and/or the generation of lattice defects is effected essentially homogeneously over the bulk material of the wafer.
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3. Method according to claim 1 or 2, characterized in that the doping with foreign atoms and/or the generation of lattice defects is effected in a predetermined region, especially a layer of the wafer
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4. Method according to claim 3, characterized in that a surface layer of the wafer is doped.

5. Method according to one of the claims 1 to 4, characterized in that the doping is effected with boron, phosphorous and/or arsenic as foreign atoms.

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6. Method according to one of the claims 1 to 5, characterized in that the establishment is effected essentially exclusively via the doping and/or the establishment of the lattice defects.

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7. Method according to one of the claims 1 to 6, characterized in that the wafer is doped with a density of foreign atoms lying between 10^{16} and 10^{19} foreign atoms per cubic centimeter.

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8. Method according to one of the claims 1 to 5, characterized in that the establishment is effected at least partially via the selection of the thickness of the wafer.

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9. Method according to one of the preceding claims, characterized in that the emissivity is established to a value of between 0.25 and 0.8.

10. Method according to one of the preceding claims, characterized in that a reflectivity of the wafer is established to a value of between 0.2 and 0.8.

5 11. Method according to one of the preceding claims, characterized in that the wafer is additionally coated to adjust the optical characteristic.

10 12. Method according to claim 11, characterized in that the wafer is coated with cobalt.